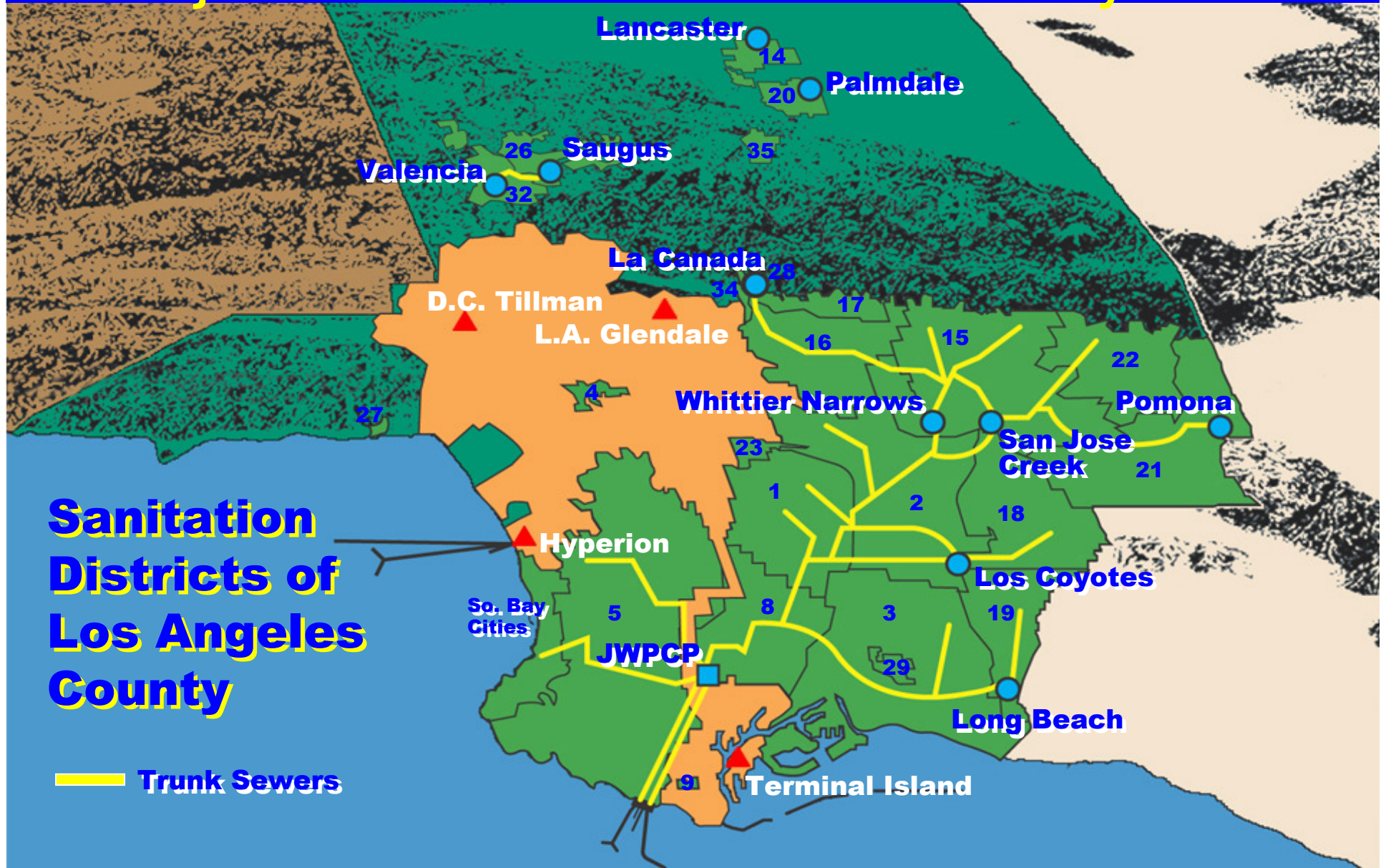


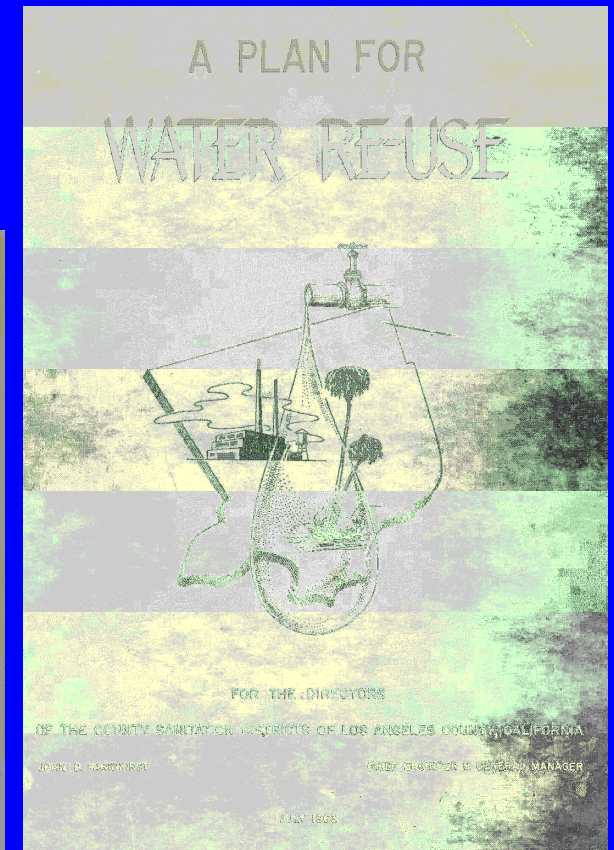
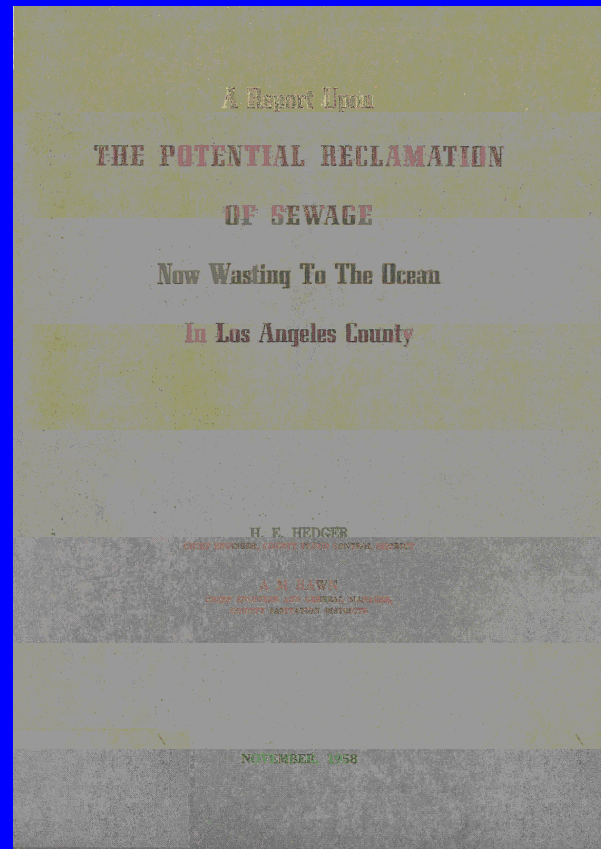
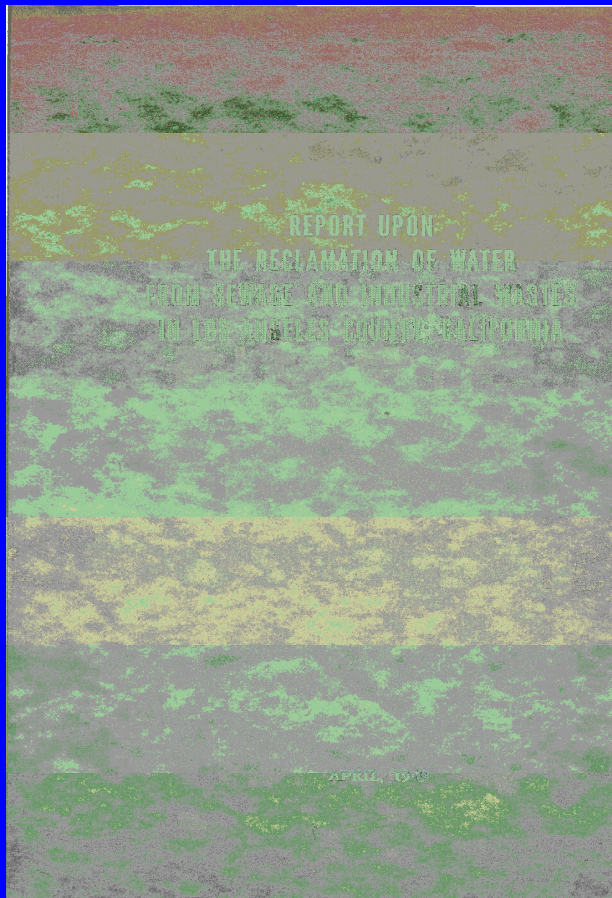
Water Recycling in Southern California: Promise and Pitfalls

*Raymond Tremblay
Assistant Department Head
Technical Services Department
Sanitation Districts of Los Angeles County*

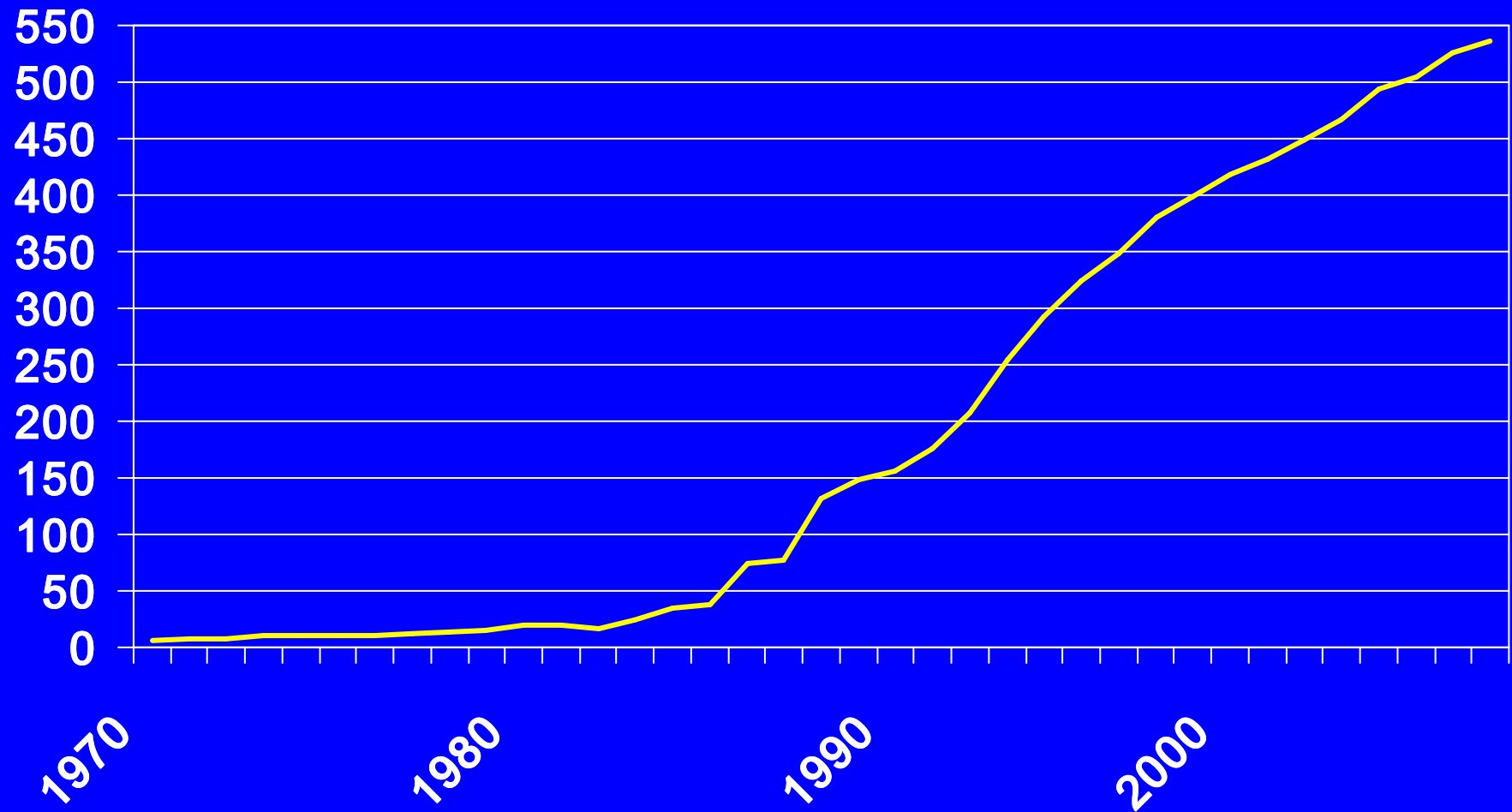
Los Angeles County Major Wastewater Treatment Systems



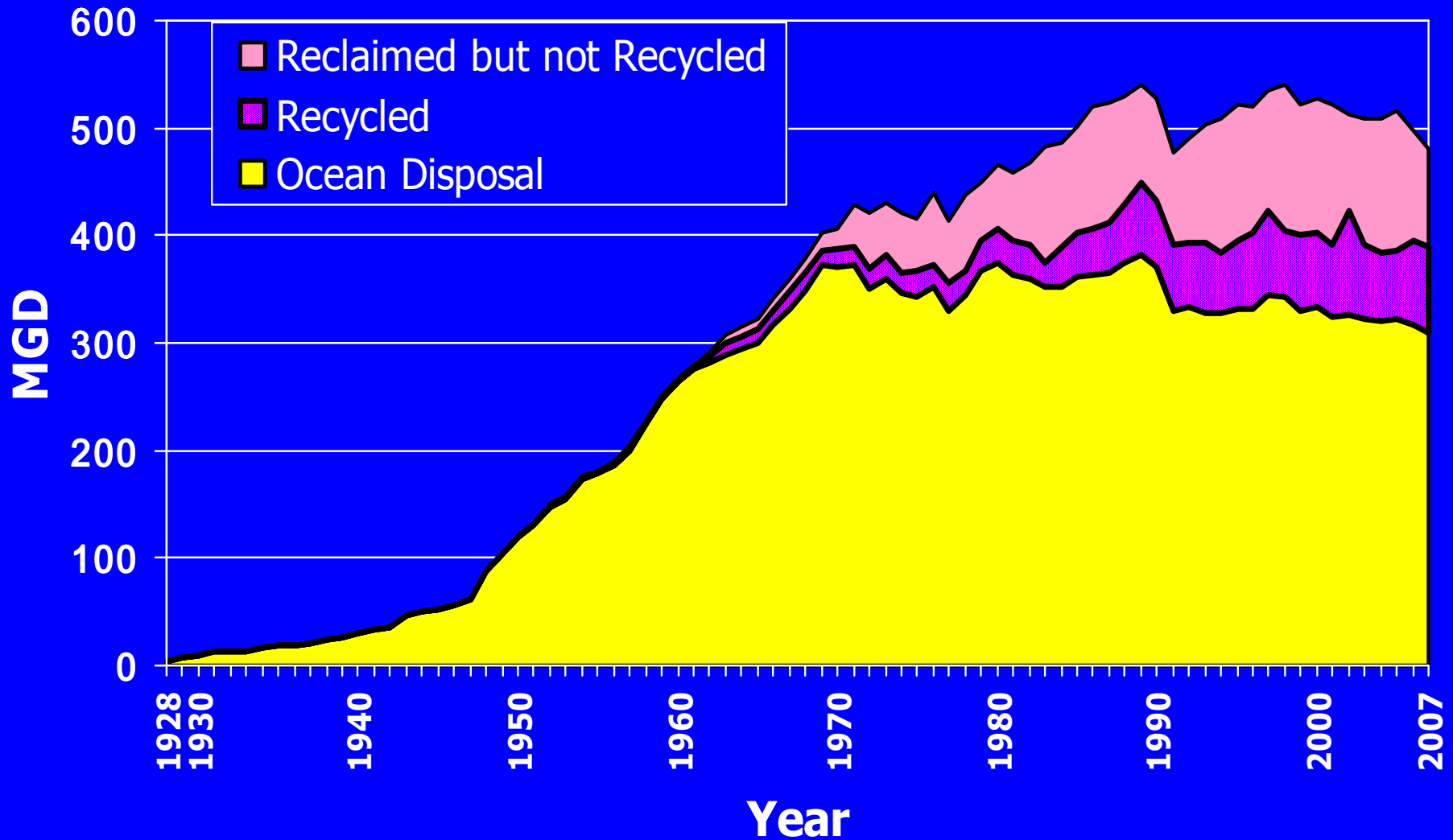
Long History of Reuse at the Districts



Increase in Number of LACSD Reuse Sites



Total LACSD Recycle vs. Ocean Discharge



How Can We Do More...

Indirect Potable Uses



Soil Aquifer Treatment (SAT)
further improves water quality
during surface spreading

Seawater intrusion
barrier injection requires
advanced treatment

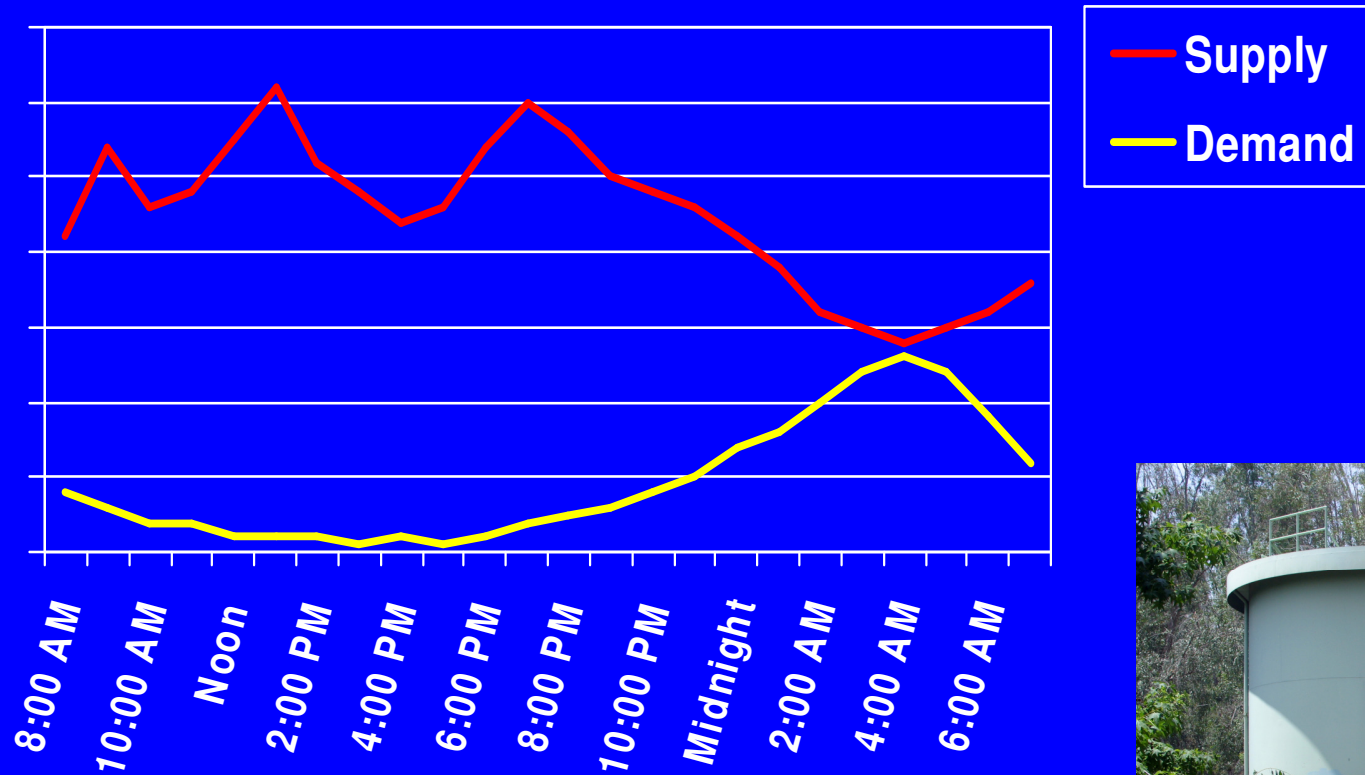


Distribution Infrastructure Costs

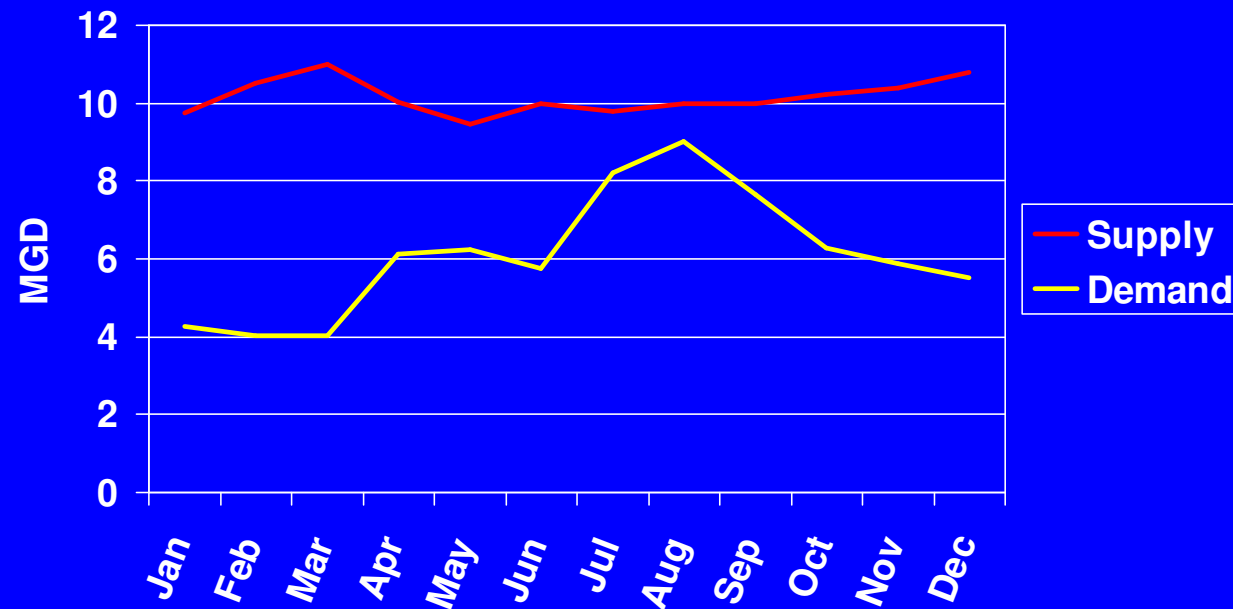


Cost Comparison:
Imported Surface Water \$500/AF
Groundwater \$50/AF
Recycled Water \$1600/AF

Need For Daily Storage



Seasonal Supply and Demand



Example: 10 MGD Annual Demand Project
60 MGD on A Summer Night
30 MGD With Daily Storage

Moral: Limit Project Max Demand = Average Daily Flow

Competition for Recycled Water



Farmers along Santa Clara River

Preservation of habitat created by recycled water discharges



Other Hurdles

- Public Perception of Water Safety
- Perception More Water = Growth
- Short Memories of Previous Droughts
- Duplication of Service Rules
- Recycling Requires Cooperation

